

U.S. Appl. No. 09/763,760
Reply to Office Action dated May 16, 2005

PATENT
450101-02582

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) A transcoder for generating, from a first multiplexed stream, a second multiplexed stream, comprising:
 - means for separating a first elementary stream from the first multiplexed stream supplied;
 - means for converting a first signal including the first elementary stream separated by the separating means by a predetermined method to a second signal;
 - means for packetizing the second signal converted by the converting means to generate a first packet;
 - means for storing timing information received from the means for separating and indicating a time at which a second packet, containing a second elementary stream forming the first multiplexed stream, appears in the first multiplexed stream; and
 - means for multiplexing, based on the timing information stored in the storing means, the first packet generated by the packetizing means and a second packet containing the second elementary stream to generate the second multiplexed stream.
2. (Original) The apparatus as set forth in Claim 1, wherein the converting means includes means for decoding the first elementary stream separated by the separating

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means to generate an original signal corresponding to the first elementary stream, and means for encoding the original signal generated by the decoding means at a predetermined bit rate.

3. (Original) The apparatus as set forth in Claim 1, wherein the converting means converts, by a predetermined method, codes forming the first elementary stream separated by the separating means.

4. (Original) The apparatus as set forth in Claim 1, wherein the multiplexing means multiplexes, based on the timing information stored in the storing means, the second packet to the second multiplexed stream at a time corresponding to the time at which the second packet appears in the first multiplexed stream.

5. (Original) The apparatus as set forth in Claim 1, wherein the first elementary stream is a video stream.

6. (Currently Amended) A transcoding method for generating, from a first multiplexed stream, a second multiplexed stream, comprising the steps of:

separating a first elementary stream from the first multiplexed stream supplied;

converting a first signal including the first elementary stream separated at the

separating step by a predetermined method to a second signal;

packetizing the second signal converted at the converting step to generate a first packet;

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storing timing information separated from the first multiplexed stream indicating a time at which a second packet, containing a second elementary stream forming the first multiplexed stream, appears in the first multiplexed stream; and

multiplexing, based on the timing information stored at the storing step, the first packet generated at the packetizing step and ~~a~~ the second packet containing the second elementary stream to generate the second multiplexed stream.

7. (Original) The method as set forth in Claim 6, wherein the converting step comprises the steps of:

decoding the first elementary stream separated at the separating step to generate an original signal corresponding to the first elementary stream; and

encoding the original signal generated at the decoding step at a predetermined bit rate.

8. (Original) The method as set forth in Claim 6, wherein at the converting step, codes forming the first elementary stream separated at the separating step are converted by a predetermined method.

9. (Original) The method as set forth in Claim 6, wherein at the multiplexing step, the second packet is multiplexed, based on the timing information stored at the storing step, to the second multiplexed stream at a time corresponding to the time at which the second packet appears in the first multiplexed stream.

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10. (Original) The method as set forth in Claim 6, wherein the first elementary stream is a video stream.

11. (Currently Amended) A medium having recorded therein a transcoding program to generate, from a first multiplexed stream, a second multiplexed stream and which is to be executed by a computer, the program comprising the steps of:

separating a first elementary stream from the first multiplexed stream supplied;

converting a first signal including the first elementary stream separated at the

separating step by a predetermined method to a second signal;

packetizing the second signal converted at the converting step to generate a first packet;

storing timing information separated from the first multiplexed stream indicating a time at which a second packet, containing a second elementary stream forming the first multiplexed stream, appears in the first multiplexed stream; and

multiplexing, based on the timing information stored at the storing step, the first packet generated at the packetizing step and a the second packet containing the second elementary stream to generate the second multiplexed stream.

12. (Original) The medium as set forth in Claim 11, wherein the converting step in the program comprises the steps of:

decoding the first elementary stream separated at the separating step to

generate an original signal corresponding to the first elementary stream; and

encoding the original signal generated at the decoding step at a predetermined bit rate.

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13. (Original) The medium as set forth in Claim 11, wherein at the converting step in the program, codes forming the first elementary stream separated at the separating step are converted by a predetermined method.

14. (Original) The medium as set forth in Claim 11, wherein at the multiplexing step in the program, the second packet is multiplexed to the second multiplexed stream at a time corresponding to the time at which the second packet appears in the first multiplexed stream based on the timing information stored at the storing step.

15. (Original) The medium as set forth in Claim 11, wherein the first elementary stream is a video stream.

16. (Currently Amended) A transcoder for generating a second multiplexed stream from a first multiplexed stream, comprising:

means for receiving the first multiplexed stream and for obtaining therefrom a first elementary stream and a second elementary stream, in which the first elementary stream conforms to a MPEG (Moving Pictures coding Experts Group) 2 standard and the second elementary stream does not conform to the MPEG 2 standard;

means for converting a first signal including the first elementary stream to a second signal in accordance with a predetermined method;

means for packetizing the second signal converted by the converting means to generate a number of first packets;

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means for obtaining timing information from the first multiplexed stream indicative of a respective time when each of a number of second packets of the second elementary stream appears in the first multiplexed stream; and

means for multiplexing, based on the timing information, the number of first packets and the number of second packets to generate the second multiplexed stream.

17. (Currently Amended) A transcoding method for generating a second multiplexed stream from a first multiplexed stream, said method comprising the steps of:

receiving the first multiplexed stream and obtaining therefrom a first elementary stream and a second elementary stream, in which the first elementary stream conforms to a MPEG (Moving Pictures coding Experts Group) 2 standard and the second elementary stream does not conform to the MPEG 2 standard;

converting a first signal including the first elementary stream to a second signal in accordance with a predetermined method;

packetizing the second signal to generate a number of first packets;

obtaining timing information from the first multiplexed stream indicative of a respective time when each of a number of second packets of the second elementary stream appears in the first multiplexed stream; and

multiplexing, based on the timing information, the number of first packets and the number of second packets to generate the second multiplexed stream.

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18. (Currently Amended) A medium having recorded therein a transcoding program to generate a second multiplexed stream from a first multiplexed stream and which is to be executed by a computer, the program comprising the steps of:

receiving the first multiplexed stream and obtaining therefrom a first elementary stream and a second elementary stream, in which the first elementary stream conforms to a MPEG (Moving Pictures coding Experts Group) 2 standard and the second elementary stream does not conform to the MPEG 2 standard;

converting a first signal including the first elementary stream to a second signal in accordance with a predetermined method;

packetizing the second signal to generate a number of first packets;

obtaining timing information from the first multiplexed stream indicative of a respective time when each of a number of second packets of the second elementary stream appears in the first multiplexed stream; and

multiplexing, based on the timing information, the number of first packets and the number of second packets to generate the second multiplexed stream.